CoM controller

$$\dot{x} = \begin{bmatrix} J_{com} \\ J_{r2l} \end{bmatrix} \dot{q}, \qquad x = \begin{bmatrix} p_{com} \\ p_{r2l} \\ o_{r2l} \end{bmatrix} = \begin{bmatrix} p_{com} \\ p_{r2l} \\ \sin(\theta_{r2l}) \cdot n_{r2l} \end{bmatrix}, \qquad \dot{x} = K(x_d - x) + \dot{x}_d$$

- Assumes that joint velocities can be directly controlled (not true!).
- Computes joint velocities (32 DOF!) to get a certain CoM velocity: CoM(t), dCoM(t) -> dq(t)
- Tries to be close to a given posture (no guarantees to avoid limits).
- Can be used to control the ZMP (i.e. balancing condition).